Revitalizing Innovation in Michigan for Clean Energy Manufacturing Agenda

For questions about the event, contact Kerry Duggan.

	Day 1 – April 21, 2011					
8:00	-	Open for Registration and Breakfast				
9:00		Welcome: <u>Dr. Stephen R. Forrest</u> , Vice President for Research, University of Michigan				
		Opening Keynote:				
	-	Dr. Henry Kelly, Acting Assistant Secretary for the Office of Energy Efficiency and Renewable Energy (EERE)				
		Introduction by Rosina M. Bierbaum, Ph.D., Dean, School of Natural Resources and Environment and Member of President's Council of Advisors on Science and Technology (PCAST)				
FINA	FINANCE					
9:45	Panel 1:	Venture Capital and Concepts for Alternative Financing				
		Michigan, like other states, is experiencing declining revenues with little prospect of new discretionary spending to support entrepreneurial activity and investments in new sectors like clean energy technology. Direct federal support that was instrumental in attracting new investment may decline as funding from the American Recovery and Reinvestment Act winds down. How do we secure capital to support and nourish diversification efforts? Can we design new financial tools that provide stable, long-term, low-cost financing for clean energy technologies and projects, lowering the cost of development and deployment? What are the ways of concentrating existing financial resources and tax incentives on the most promising, competitive, highly innovative, and cost effective business opportunities?				
		Moderator: Tom Henderson, <u>Crains Detroit Business</u>				
		Panelists:				
		 David Danielson, Program Director, <u>ARPA-E</u> Christopher L. Rizik, Chief Executive Officer and Fund Manager, <u>the Renaissance Venture</u> Jeff Bocan, Managing Director, <u>Beringea</u> Ryan Waddington, <u>Co-Founder and Managing Director</u>, <u>Huron River Ventures</u> 				
11:00	-	Introduction to Innovation in Technology and Manufacturing by Leo				

		Christodoulou, Program Manager for EERE's Industrial Technology Program			
INNOVATION IN TECHNOLOGY AND MANUFACTURING – PART 1					
1:15	Panel 2:	Energy Efficiency: Enhancing Productivity and Competitiveness			
		Energy efficiency reduces energy demand and the need for new energy generation. For industry, energy efficiency reduces the cost of production, ultimately increasing economic competitiveness, and has the added benefit of curbing greenhouse gas emissions. With all these benefits, what are the barriers preventing the uptake of these technologies? How can energy efficiency financin mechanisms be improved to accelerate implementation of energy efficiency measures? What strategies facilitate consensus-building to promote adoption of higher energy optimization standards?			
		Moderator: Martin Kushler, Senior Fellow, ACEEE			
		Panelists:			
		 Ken Ostrowski, Director, McKinsey and Company Scott Hibbard, VP of Engineering and Product Management, <u>BoschRexroth</u> Trevor Laurer, VP Marketing and Renewables, Energy Optimization, <u>DT Energy</u> Seth Roberts, Director of Energy and Climate Change, <u>The Dow Chemica Company</u> 			
2:30	Lunch:	Networking Lunch			
		Visit with attendees, including representatives from such government agencies as			
		U.S. Economic Development Agency			
		Environmental Protection Agency: E3 Initiative			
		Barbara A. Cunningham, Deputy Office Director for Management and Pollution Prevention for the Office of Pollution Prevention and Toxics			

National Institute of Standards and Technology

U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy

Kerry Duggan, Senior Advisor to the (acting) Assistant Secretary

INNOVATION IN TECHNOLOGY AND MANUFACTURING – PART 2

2:00 Panel Clean Energy Manufacturing: Michigan's Opportunity for Re-

3: **Industrialization?**

Michigan's clean energy manufacturing sectors—wind, solar and advanced energy storage systems—are investing \$10 billion in new production infrastructure in Michigan. Clean energy manufacturing aligns optimally with Michigan's strengths in advanced manufacturing, robotics, engineering, and materials science and is well supported by research universities and workforce development programs. How big are the opportunities from the industry perspective? What strategies would enable Michigan to take greater advantage of these opportunities? What role can government play to support these sectors, particularly during times of fiscal constraint?

Moderator:

Skip Pruss, ERAC member and Partner, 5 Lakes Energy, LLC

Panelists:

- 1. Jeff Metts, President, Dowding Industries, Inc.
- 2. Steve Busch, Energetx Composites
- 3. Fred Keller, <u>Cascade Engineering</u>
- 4. Gregory Bausch, Solar Product Market Manager, <u>Hemlock Semiconductor Corporation & Hemlock Semiconductor</u>, L.L.C.

3:15 - Break

JOBS

3:45 Panel

Where the jobs are: Supply Chain

4:

The depth and sophistication of Michigan's design, engineering, and component manufacturing industries provide unique opportunities serve and add value in clean energy manufacturing and technology. Our supply chain is linked to more than 300 research and development laboratories, integrating superb R&D and engineering capacities with strong industry strategic partnerships and well-established logistics and business processes. How can Michigan leverage this unique capacity to our competitive advantage? How can we create and accelerate opportunities for our supply chain businesses to diversify into clean energy manufacturing? What are the best models of innovation that solve intellectual property questions, facilitate knowledge spillover, forge collaborations and bring new products and technologies to market?

Moderator:

Ron Dzwonkowski, Associate Editor, Detroit Free Press

Panelists:

1. Dan Radomski, Co-Founder Kinetik Partners

		 Parthiv Amin, President, Community Wind, Northern Power Steve Vielmetti, VP of Strategic Value Chain, Johnson Controls Les Alexander, General Manager, A123 Systems
5:00	-	Adjourn

Day 2 – April 22, 2011

8:30 - Registration and Coffee

COMMERCIALIZATION

9:15 Panel Accelerating Commercialization

5:

Michigan is now first among states in the number of clean energy patents. We have supporting institutions in cities and regions providing access to capital, startup and business acceleration assistance, and market and technology trend analyses. How do we leverage intellectual property, drive catalytic cross collaborations, and strengthen business management processes that bring innovative technologies, products, and services to market faster?

Moderator:

Thomas P. Lyon, Director, Erb Institute for Global Sustainable Enterprise

Panelists:

- 1. Paul Krutko, CEO, Ann Arbor SPARK
- 2. Kenneth J. Nisbet, Executive Director, U-M University Tech Transfer
- 3. James R. Baker, Director, Technology and Economic Development, Michigan Technological University
- 4. Jim Saber, VP of Business Development, NextEnergy

10:15 - Break

POLICY

10:30 Panel The Role of Government—Forging Alliances, Setting Policy, and Building a Statewide Innovation Ecosystem

What are the best models to spur innovation and optimize the effective and efficient development of new technologies, products and services for state, national and international markets? How do aggregate and optimize our in-state and regional assets and our locational advantages and strengths in advanced manufacturing, engineering, the biosciences and materials science so that our capacity for innovation is maximized and we optimize competitive advantages? How do we concentrate these assets and create dynamic collaborations between industry partners, inter-disciplinary engagements with academia, and partnerships with government that create new opportunities and accelerate diversification and

job creation efforts?

Moderator:

Jack Lessenberry, Professor of Journalism, <u>Wayne State University</u>; Senior Political Analyst, Michigan Radio.

Panelists:

- 1. Mike Finney, MEDC
- 2. Dennis Alvord, Executive Director, CommerceConnect
- 3. Chris Brown, Chief Operating Officer, City of Detroit
- 4. Jason Miller, Special Assistant to the President for Manufacturing Policy, White House National Economic Council

12:00 - Lunch

Introduction by <u>Rosina M. Bierbaum, Ph.D.</u>, Dean, School of Natural Resources and Environment and Member of President's Council of Advisors on Science and Technology (PCAST)

Lunch Keynote: <u>U.S. Senator Debbie Stabenow</u>

- 1:00 Wrap <u>Dr. Dennis Assanis</u>, Director, <u>Michigan Memorial Phoenix Energy Institute</u> and up: member of the <u>PCAST Energy Technologies Innovation System Working Group</u>
 - 1. What did we hear?
 - 2. Connections needed to strengthen this ecosystem?
 - 3. How will Michigan sustain positive growth from federal and state investments?
 - 4. Where are the gaps?

1:30 - Adjourn